

TRANSPARENT INTER-METAL DIELECTRIC STACK
FOR CMOS IMAGE SENSORS

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ABSTRACT

A transparent inter-metal dielectric utilized in a CMOS image sensor includes a flowlayer sandwiched between a base SiO_2 layer and a cap SiO_2 layer. The flowlayer is formed by reacting SiH_4 and H_2O_2 using a shortened H_2O_2 stabilization time, using a reduced deposition pressure, and while maintaining the reaction chamber platen at a target value of approximately 1°C .